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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
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In the Matter of )  
 )  
Allocation of Spectrum Below 5 GHz Transferred ) ET Docket No. 94-32  
from Federal Governmental Use )

**COMMENTS**

The Wireless Cable Association International, Inc. ("WCAI"), by its attorneys and pursuant to Sections 1.415 and 1.419 of the Commission's Rules, hereby submits its initial comments in response to the *Notice of Proposed Rule Making* ("NPRM") in this proceeding.<sup>1/</sup>

As the trade association of the wireless cable industry,<sup>2/</sup> WCAI has a vital interest in the outcome of this matter. With the *NPRM*, the Commission has solicited comment on proposals for the regulation of 50 megahertz of spectrum in the 2390-2400 MHz, 2402-2417 MHz and 4660-4685 MHz bands that has been reallocated from federal government to private sector use. WCAI's interest stems from the fact that these bands may provide a source of much-needed spectrum for the wireless cable industry. As the Commission has recognized, wireless cable operators face a severe

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<sup>1/</sup>*Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use*, FCC 94-272, ET Docket No. 94-32 (rel. Nov. 8, 1994)[hereinafter cited as "*NPRM*"].

<sup>2/</sup>WCAI's membership includes the operators of virtually every wireless cable system in the United States. In addition, WCAI's members include licensees in the Multipoint Distribution Service ("MDS") and Instructional Television Fixed Service ("ITFS") that lease channel capacity to wireless cable system operators, equipment manufacturers and program suppliers.

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shortage of channel capacity when compared to their coaxial cable and Direct Broadcast Satellite ("DBS") competition.<sup>3/</sup> Although cost factors make it impractical to utilize the bands that are the subject of the *NPRM* for the point-to-multipoint transmission of video programming to wireless cable subscribers, in the future the 2390-2400, 2402-2417 and/or 4660-4685 MHz bands could be employed by wireless cable system operators to provide the return paths that emerging interactive applications will demand.

It is essential to the future viability of wireless cable that operators have access to additional spectrum that supports interactive services.<sup>4/</sup> Hardly a week goes by without the communications trade press reporting on the efforts of coaxial cable system operators and telephone companies to offer interactive video applications to consumers.<sup>5/</sup> Major program suppliers are already looking to the wireless cable

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<sup>3/</sup>See *Amendment of Part 74 of the Commission's Rules Governing Use of the Frequencies in the Instructional Television Fixed Service*, 9 FCC Rcd 3360, 3364 (1994); *Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service*, FCC 94-293, MM Docket No. 94-131 and PP Docket No. 93-523, at ¶ 2 (rel. Dec. 1, 1994)[hereinafter cited as "*MDS Auction NPRM*"].

<sup>4/</sup>While the Commission has allocated a small quantity of spectrum at 2686-2690 MHz for use by wireless cable operators as return paths, it has proven technologically difficult to employ that spectrum because it is directly adjacent to a channel used for the transmission of programming to consumers.

<sup>5/</sup>See, e.g. "FSN Testbed Unveiled: Levin Calls Orlando 'Turning Point' for Telecommunications," *Communications Daily*, at 2-3 (Dec. 15, 1994).

industry as a potential distributor of interactive video programming.<sup>6/</sup> If the wireless cable industry is denied access to the spectrum needed to provide interactivity, wireless cable is destined to become, to employ an already overused analogy, road kill on the information superhighway.

WCAI is not asking the Commission to set aside any spectrum in the 2390-2400 MHz, 2402-2417 MHz and 4660-4685 MHz bands for the exclusive use of wireless cable operators. Rather, WCAI is merely asking the Commission to assure that wireless cable operators have a fair opportunity to bid for and productively use some portion of that spectrum. Thus, WCAI applauds the Commission for suggesting a regulatory scheme for these bands that maximizes the flexibility that licensees will be afforded in tailoring their service offerings. Subject to the caveat detailed below regarding the possible need to reserve spectrum in this proceeding for unlicensed data Personal Communications Service ("PCS"), the Commission should adopt rules governing the 2390-2400 MHz, 2402-2417 MHz and 4660-4685 MHz bands that generally permit the licensee complete flexibility to use the spectrum as it sees fit within its geographic area, subject only to compliance with interference protection requirements. Just as it did for PCS, an open, flexible service definition for these

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<sup>6/</sup>See Weinschenk, "Court TV Sets Alternative Distribution Unit," *Cable World*, at 84 (Dec. 5, 1994)[“Court TV’s new broadband distribution division that will seek new ways to distribute the service’s fare could be the perfect early vehicle for interactive programming, sources say. . . . Target technologies include . . . MMDS/wireless telephony.”]

bands “will provide the most effective approach for meeting [the] four objectives of universality, speed of deployment, diversity of services and competitive delivery.”<sup>7/</sup>

While WCAI generally supports a marketplace approach to the licensing of the bands that are the subject of the *NPRM*, it recognizes that the public interest may be served by reserving a portion of those bands for unlicensed use. In particular, WCAI supports the proposal advanced in the *NPRM* to reserve the 2300-2310 MHz and/or 2390-2400 MHz bands for unlicensed data PCS.<sup>8/</sup> The Commission has previously announced that it was “committed to instituting a further rule making . . . to meet the long term requirements for unlicensed PCS devices.”<sup>9/</sup> The 2300-2310 MHz and 2390-2410 MHz bands appear to be the best available candidates for providing additional spectrum for unlicensed data PCS.<sup>10/</sup> Although the *NPRM* suggests as an alternative

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<sup>7/</sup>*Amendment of the Commission's Rules to Establish New Personal Communications Services*, 8 FCC Rcd 7700, 7712 (1993)[hereinafter cited as “*PCS Second Report and Order*”].

<sup>8/</sup>See *NPRM*, at ¶ 14.

<sup>9/</sup>*Amendment of the Commission's Rules to Establish New Personal Communications Services*, 9 FCC Rcd 4957, 4990-91 (1994)[hereinafter cited as “*PCS Reconsideration Order*”].

<sup>10/</sup>A report by the David Sarnoff Research Center, Inc. commissioned by WCAI indicates that these bands can be used for unlicensed data PCS applications. It should be noted that WCAI's support for the reallocation of additional spectrum for unlicensed data PCS is premised on the ability of the unlicensed data PCS community to establish that it has a long-term need for additional spectrum. Over the past several months, the need for an additional unlicensed data PCS spectrum allocation has been called into question. Through the use of infrared technology and radio spectrum that is already allocated, the computer industry has  
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that the 2150-2162 MHz band be freed for unlicensed data PCS by migrating existing MDS facilities to the 2300-2310 MHz and 2390-1400 MHz bands,<sup>11/</sup> that approach has proven unworkable. Based on informal discussions among WCAI, proponents of unlicensed data PCS and the Commission's staff, it appears that the unlicensed data PCS community is unwilling to pay the several hundred million dollars necessary to seamlessly migrate current users of the 2150-2162 MHz band to other spectrum in the manner required by the *First Report and Order and Third Notice of Proposed Rule Making* in ET Docket No. 92-9.<sup>12/</sup>

In the *NPRM*, the Commission expresses the belief that "it is important to provide for a market structure that provides for competition in the provision of new services," and proposes to license the available spectrum in blocks of one or two megahertz in each geographic area.<sup>13/</sup> WCAI concurs both with the Commission's policy objective and its proposed means to that end. It is far too early to determine

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<sup>10/</sup>(...continued)

already successfully brought to market a variety of products offering functions indistinguishable from unlicensed data PCS. See, e.g. Flynn, "Cutting the Data Umbilical Cord With Infrared Sensors," *N.Y. Times*, Sec. 3, p. 9 (Oct. 25, 1994); Boyle, "Wireless LANS: No Strings Attached," *PC Magazine*, at 215-237 (Jan. 10, 1995); "Untether Yourself . . .," *PC Magazine*, at 32 (Jan. 10, 1995).

<sup>11/</sup>See *NPRM*, at ¶ 14.

<sup>12/</sup>See *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, 7 FCC Rcd 6886, 6890 (1992).

<sup>13/</sup>See *NPRM*, at ¶ 9.

precisely what the highest and best use of these spectrum bands will be. While WCAI suspects that most service providers in these bands will require more than just one or two megahertz, there is insufficient knowledge regarding the future use of these bands for anyone to propose a detailed channelization plan with any degree of certainty that it will prove efficient in the long term. So long as applicant/bidders can aggregate multiple spectrum blocks within a given geographic area, the proposed use of a channelization plan based on very small bandwidth channels should maximize efficient use of the spectrum by permitting each service provider to secure just the amount of spectrum it requires.<sup>14/</sup>

For similar reasons, the Commission should issue licenses for relatively small geographic areas while permitting applicant/bidders to aggregate adjacent territories. WCAI suggests that licenses for the bands that are the subject of the *NPRM* be awarded based on cellular Metropolitan Statistical Areas (“MSAs”) and Rural Service Areas (“RSAs”). An MSA/RSA would appear to be the smallest practical geographic area for use in connection with licensing, while adjacent MSA/RSAs could be combined by those service providers who demand a more regional scope.<sup>15/</sup> Again,

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<sup>14/</sup>See *PCS Second Report and Order*, 8 FCC Rcd at 7726-29; *PCS Reconsideration Order*, 9 FCC Rcd at 4980-82.


<sup>15/</sup>See *PCS Second Report and Order*, 8 FCC Rcd at 7734. Certainly, MSA/RSAs are not too small for use in the licensing of this spectrum. Indeed, earlier this month the Commission proposed to adopt an MSA/RSA-based system for issuing licenses for new MDS stations. See *MDS Auction NPRM*, at ¶¶ 6-7. Admittedly, WCAI has concerns regarding the  
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this would yield efficient spectrum utilization. Local service providers could secure authorization for just a single MSA/RSA, while those service providers operating on a broader geographic scope could accumulate licenses for multiple MSA/RSAs.

WHEREFORE, for the foregoing reasons, WCAI urges the Commission to adopt the proposals advanced in the *NPRM* subject to the matters addressed above.

Respectfully submitted,

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<sup>15/</sup>(...continued)

implementation of an MSA/RSA-based system for MDS licensing after hundreds of licenses have already been issued using a different system. However, as the Commission's proposal for the licensing of MDS demonstrates, the use of MSA/RSAs is an appropriate basis for licensing spectrum that will be employed by local service providers.